

16-bit 200KSPS 8-channel Analog-to-Digital Converter (ADC)

1 Main features:

- ◆ Conversion bits: 16Bit
- ◆ Throughput rate: 200 KSPS
- ◆ Low power consumption: 250mW
- ◆ INL: $\pm 3.5\text{LSB}$ (Typical value)
- ◆ SNDR: $90\text{dB}@1\text{kHz}$ input
- ◆ THD: $-100\text{dB}@10\text{kHz}$ input
- ◆ Signal input range: $\pm 5\text{V}, \pm 10\text{V}$
- ◆ Pipeline-free delay
- ◆ Serial interface: SPI compatible
- ◆ Encapsulation: QFP64

2. Typical applications

- ◆ Power supply equipment
- ◆ Servo control system
- ◆ Automatic test equipment
- ◆ Data acquisition
- ◆ Medical instrument

3 Product Description

HL7606 is an eight-channel synchronous sampling, 16-bit precision, 200KSPS conversion rate successive approximation analog-to-digital converter chip.

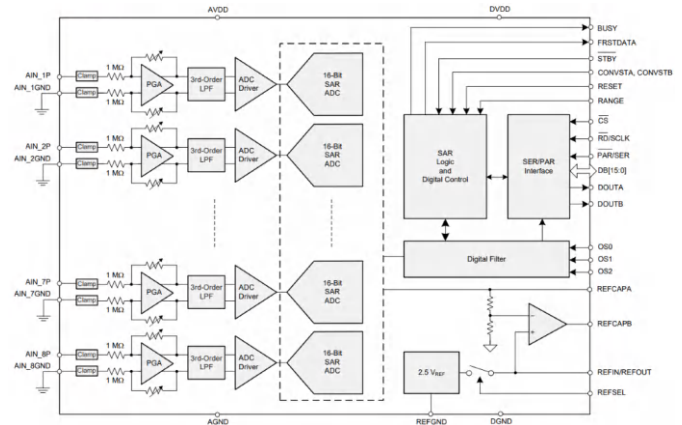
The HL7606 can be configured to quantify input signals in the $\pm 5\text{V}, \pm 10\text{V}$ range,

5 Compared with similar foreign products

	precision	Conversion rate	Data port	Power dissipation	SNDR	THD	Encapsulation form
ADS8588 (TI)	16-bit	200KSPS	Serial / parallel port	250mW	$90\text{dB}@1\text{kHz}$	$-100\text{dB}@1\text{kHz}$	QFP-64
AD7606 (ADI)	16-bit	200KSPS	Serial / parallel port	250mW	$90\text{dB}@1\text{kHz}$	$-100\text{dB}@1\text{kHz}$	QFP-64
HL7606	16-bit	200KSPS	Serial / parallel port	250mW	$90\text{dB}@1\text{kHz}$	$-100\text{dB}@1\text{kHz}$	QFP-64

and can choose between parallel or serial interfaces for communication.

HL7606 is compatible with foreign products AD7606 and ADS8588 pins, which can be replaced. The functional structure block diagram of the chip is shown below:



4 Product Highlights

- ◆ Supports 8-channel synchronous sampling
- ◆ The low-voltage power supply quantifies the high-voltage signal
- ◆ Compatible with serial/parallel interfaces
- ◆ On-chip digital filter improves accuracy